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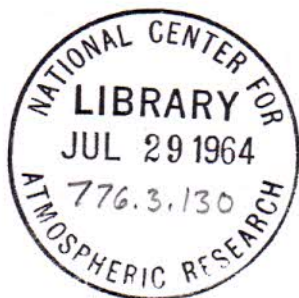
4 MAY 1964

BALLOON FLIGHT RECORD STATUS REPORT

as of 31 December 1963

by

John R. Winckler



*gift = work*

*from* →

School of Physics  
University of Minnesota

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Cosmic Ray Group

April 1964

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# BALLOON FLIGHT RECORD STATUS REPORT

as of 31 December 1963

School of Physics, University of Minnesota  
Minneapolis 14, Minnesota

This tabulation is a continuation of five previous status reports.\*

Balloon flights were launched from Minneapolis, Minnesota; Fort Churchill, Manitoba, Canada and International Falls, Minnesota. The flights used either the standard monitoring apparatus described earlier, or the scintillation counters to obtain more specific data about x-rays resulting from electron precipitation.

The tabulation gives the flight number, launch time, launch location, duration and type of instrumentation used on each of the flights. The flight duration is measured from launch time. The floating pressure altitude of the current balloon system is 6 mb. In general, the flights attained this altitude about two hours after the stated launch time. The balloons do not always float at a constant altitude, however, so that the detailed time-pressure curve for each flight is necessary for final analysis. An index for the types of instruments used is attached at the end of the tabulation. The original data from flights during 1960, 1961, 1962 and 1963 are being plotted in standard form and copied photographically on 5 x 7 inch negatives. We shall endeavor to furnish copies of these original graphs in a convenient size to qualified scientists in other laboratories. Nuclear emulsion packages were carried on most flights and are analyzed by the Nuclear Emulsion Group, School of Physics, University of Minnesota.

Inquiries about this project should be addressed to Professor J. R. Winckler, School of Physics, University of Minnesota, Minneapolis 14, Minnesota.

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\*Balloon Flight Record and Data Reduction and Analysis, Status Report of  
15 February 1959.

Balloon Flight Record Status Report as of 31 December 1959.

Balloon Flight Record Status Report as of 30 December 1960.

Balloon Flight Record Status Report as of 31 December 1961.

Balloon Flight Record Status Report as of 31 December 1962.



<u>Flight No.</u>	<u>Launch Time (UT)</u>	<u>Launch Date (UT)</u>	<u>Launch Location</u>	<u>Hours Duration (Launch to Termination)</u>	<u>Instrumentation</u>
✓ M-443	0316	19 Jan 1963	Minneapolis	>3 hrs 16 min	Standard
✓ M-444	0242	26 Jan 1963	Minneapolis	>5 hrs 42 min	Standard
✓ M-445	0301	16 Feb 1963	Minneapolis	7 hrs 5 min	Standard
✓ M-446	2335	8 Mar 1963	Minneapolis	>4 hrs 58 min	SCI. GT
✓ M-447	0235	9 Mar 1963	Minneapolis	>4 hrs 30 min	SCI.
✓ M-448	0253	10 Mar 1963	Minneapolis	Negligible	SCI.
✓ M-467	0451	10 Mar 1963	Minneapolis	>5 hrs 2 min	SCI. GT
647	1411	14 Mar 1963	Minneapolis	3 hrs 23 min	IC, SC-A
✓ M-468	1402	27 Mar 1963	Minneapolis	3 hrs 19 min	Standard
✓ M-469	0406	20 Apr 1963	Minneapolis	4 hrs 45 min	Standard
✓ M-470	1457	25 Apr 1963	Minneapolis	4 hrs 40 min	Sp. Solid State detector
✓ M-471	0600	4 May 1963	Minneapolis	>27 hrs 58 min	Standard
✓ M-472	0557	7 June 1963	Minneapolis	10 hrs 36 min	SCI. GT
✓ M-473	0220	8 June 1963	Minneapolis	12 hrs 9 min	Standard
✓ M-476	0202	5 July 1963	Minneapolis	>10 hrs 35 min	Standard
✓ M-477	0156	6 July 1963	Minneapolis	>16 hrs 39 min	Standard
✓ M-478	0219	3 Aug 1963	Minneapolis	>8 hrs 26 min	Standard
✓ M-479	0705	21 Aug 1963	Minneapolis	>12 hrs 15 min	Standard
✓ M-482	0333	12 Aug 1963	Minneapolis	>2 hrs 55 min	Standard
✓ M-483	0040	17 Aug 1963	Minneapolis	9 hrs 35 min	Standard
✓ M-484	0153	20 Sept 1963	Minneapolis	>12 hrs 37 min	Standard
✓ M-485	0285	28 Sept 1963	Minneapolis	>10 hrs 58 min	SCI. GT
✓ M-486	0138	12 Oct 1963	Minneapolis	7 hrs 46 min	Standard
✓ M-487	0054	30 Oct 1963	Minneapolis	7 hrs 2 min	Standard
✓ M-488	1417	16 Nov 1963	Minneapolis	6 hrs 13 min	Standard

Flight No.	Launch Time (UT)	Launch Date (UT)	Launch Location	Hours Duration (Launch to Termination)	Instrumentation
✓ M-489	1535	16 Dec 1963	Minneapolis	> 3 hrs 25 min	Standard
✓ M-474	0214	5 July 1963	Int'l Falls, Minn.	> 10 hrs 23 min	Standard
✓ M-475	0200	6 July 1963	Int'l Falls, Minn.	> 10 hrs 28 min	Standard
✓ M-480	0250	21 Aug 1963	Ft. Churchill, Can.	17 hrs 33 min	Standard
✓ M-481	0333	13 Aug 1963	Ft. Churchill, Can.	36 hrs 55 min	Standard

Instrumentation Code:

Standard = Ion Chamber, Single Counter, Telescope

SCI = Scintillation Counter

GT = Geiger Telescope

> = Termination time not known accurately at time of this report.

SC-A = Single Geiger Counter (Aluminum)

IC = Ion Chamber